

1. Concurrent programming (Module II)

Nelma Moreira & **José Proença**

Concurrent programming (CC3040) 2023/2024

CISTER – U.Porto, Porto, Portugal

<https://fm-dcc.github.io/pc2324>



Contents of this module

Blocks of sequential code running concurrently and sharing memory:

- What is Scala and why using it?
- Concurrency in Java and its memory model
- Basic concurrency blocks and libraries
- Futures and promises
- Actor model (maybe)

We will be **less formal**

- focus on concepts and programs
- study operators and libraries
- tool support with Scala

We will have **hands-on**

- Practical programming exercises
- Apply the concepts we see

Logistics

Relevant class material and announcements will be posted on the website periodically

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Lecturers

- Nelma Moreira
<https://www.dcc.fc.up.pt/~nam/>
- nam@fc.up.pt
- office hours: tbd
- **José Proença**
<https://jose.proenca.org>
- jose.proenca@fc.up.pt
- office hours: Thursday afternoon

(Please send an email the day before if you wish to meet)

Grading will consist of:

- **40%** (**T1**) – individual **test** for module I (≥ 6)
- **30%** (**T2**) – individual **test** for module II (≥ 6)
- **70%** (**FE**) – individual **final exam** for modules I and II
- **30%** (**CW**) – **course work** for modules I and II
 - groups of at most 2 students
 - **10%** for module I
 - **20%** for module II

Normal period

$$T1 \times 0.3 + T2 \times 0.4 + CW \times 0.3 \quad (\geq 9.5)$$

Mandatory 25% attendance in PL

Extra period (*recurso*)

$$FE \times 0.7 + CW \times 0.3 \quad (\geq 9.5)$$